

WEST Search History

DATE: Tuesday, June 17, 2003

| <u>Set Name</u> side by side | <u>Query</u> | <u>Hit Count</u> | <u>Set Name</u> result set |
|---|--|------------------|-------------------------------|
| <i>DB=USPT,PGPB,JPAB,EPAB,DWPI,TDBD; PLUR=YES; OP=ADJ</i> | | | |
| L7 | L4 and gel | 42 | L7 |
| L6 | L4 and sol | 0 | L6 |
| L5 | L4 and alkoxysilane | 0 | L5 |
| L4 | L3 and glass | 52 | L4 |
| L3 | L1 and tempo\$4 | 94 | L3 |
| L2 | L1 and (sol same gel) | 17 | L2 |
| <i>DB=USPT; PLUR=YES; OP=ADJ</i> | | | |
| L1 | ((525/54.1)!.CCLS. (536/4.1 536/18.5)!.CCLS.) | 2246 | L1 |

END OF SEARCH HISTORY

(FILE 'HOME' ENTERED AT 12:52:36 ON 17 JUN 2003)

FILE 'CAPLUS, MEDLINE, USPATFULL, EUROPATFULL, PATOSWO' ENTERED AT
12:53:05 ON 17 JUN 2003

| | |
|----|--------------------------|
| L1 | 45275 S SOL WITH GEL |
| L2 | 14241 S L1 AND GLASS |
| L3 | 679 S L2 AND TEMPO? |
| L4 | 173 S L3 AND SYNTHESIS |
| L5 | 161 S L4 AND METAL |
| L6 | 144 S L5 AND ORGANIC |
| L7 | 13 S L6 AND ALKOXYSILANE |

L7 ANSWER 1 OF 13 USPATFULL

ACCESSION NUMBER: 2003:92890 USPATFULL

TITLE: Method and materials for patterning of a polymerizable, amorphous matrix with electrically active material disposed therein

INVENTOR(S): Wolk, Martin B., Woodbury, MN, UNITED STATES
Bellmann, Erika, St. Paul, MN, UNITED STATES
Li, Yingbo, Woodbury, MN, UNITED STATES
Roberts, Ralph R., Cottage Grove, MN, UNITED STATES
Bentsen, James G., North St. Paul, MN, UNITED STATES

| | NUMBER | KIND | DATE |
|-----------------------|---|------|---------------|
| PATENT INFORMATION: | US 2003064248 | A1 | 20030403 |
| APPLICATION INFO.: | US 2002-208910 | A1 | 20020730 (10) |
| RELATED APPLN. INFO.: | Continuation-in-part of Ser. No. US 2001-931598, filed on 16 Aug 2001, PENDING | | |
| DOCUMENT TYPE: | Utility | | |
| FILE SEGMENT: | APPLICATION | | |
| LEGAL REPRESENTATIVE: | Office of Intellectual Property Counsel, 3M Innovative Properties Company, PO Box 33427, St. Paul, MN, 55133-3427 | | |
| NUMBER OF CLAIMS: | 24 | | |
| EXEMPLARY CLAIM: | 1 | | |
| NUMBER OF DRAWINGS: | 3 Drawing Page(s) | | |
| LINE COUNT: | 1645 | | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB In a method of making an **organic** electroluminescent device, a transfer layer is solution coated on a donor substrate. The transfer layer includes a polymerizable, amorphous matrix with a light emitting material disposed in the matrix. The transfer layer is then selectively patterned on a receptor. The polymerizable, amorphous matrix is then polymerized. Examples of patterning methods include laser thermal transfer or thermal head transfer. The method and associated materials can be used to form, for example, **organic** electroluminescent devices.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 2 OF 13 USPATFULL

ACCESSION NUMBER: 2003:76397 USPATFULL

TITLE: Perfluorinated amide salts and their uses as ionic conducting materials

INVENTOR(S): Michot, Christophe, Grenoble, FRANCE
Armand, Michel, Montreal, CANADA
Gauthier, Michel, La Prairie, CANADA
Choquette, Yves, Sainte-Julie, CANADA

| | NUMBER | KIND | DATE |
|-----------------------|---|------|---------------|
| PATENT INFORMATION: | US 2003052310 | A1 | 20030320 |
| APPLICATION INFO.: | US 2002-253035 | A1 | 20020924 (10) |
| RELATED APPLN. INFO.: | Continuation of Ser. No. US 2001-858439, filed on 16 May 2001, PENDING Continuation of Ser. No. US 1998-125797, filed on 3 Dec 1998, GRANTED, Pat. No. US 6319428 | | |

| | NUMBER | DATE |
|-----------------------|-----------------|----------|
| PRIORITY INFORMATION: | CA 1996-2194127 | 19961230 |
| | CA 1997-2199231 | 19970305 |
| | WO 1997-CA1013 | 19971230 |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | APPLICATION | |

LEGAL REPRESENTATIVE: Patent Group, Choate, Hall & Stewart, Exchange Place,
53 State Street, Boston, MA, 02109-2804
NUMBER OF CLAIMS: 78
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 2 Drawing Page(s)
LINE COUNT: 4119

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention concerns ionic compounds in which the anionic load has been delocalized. A compound disclosed by the invention is comprised of an amide or one of its salts, including an anionic portion combined with at least one cationic portion M.sup.+m in sufficient numbers to ensure overall electronic neutrality; the compound is further comprised of M as a hydroxonium, a nitrosonium NO.sup.+, an ammonium --NH.sub.4+, a metallic cation with the valence m, an **organic** cation with the valence m, or an organometallic cation with the valence m. The anionic portion matches the formula R.sub.F--SO.sub.x--N.sup.-Z, wherein R.sub.F is a perfluorinated group, x is 1 or 2, and Z is an electroattractive substituent. The compounds can be used notably for ionic conducting materials, electronic conducting materials, colorants, and the catalysis of various chemical reactions.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 3 OF 13 USPATFULL

ACCESSION NUMBER: 2002:301722 USPATFULL
TITLE: Film-forming specifically detachable material
INVENTOR(S): Amberg-Schwab, Sabine, Erlabrunn, GERMANY, FEDERAL
REPUBLIC OF
Crnobrnja, Rozalija, Wurzburg, GERMANY, FEDERAL
REPUBLIC OF
Haas, Karl-Heinz, Veitshochneim, GERMANY, FEDERAL
REPUBLIC OF

| | NUMBER | KIND | DATE |
|-----------------------|--|------|---------------|
| PATENT INFORMATION: | US 2002169270 | A1 | 20021114 |
| APPLICATION INFO.: | US 2002-138762 | A1 | 20020503 (10) |
| RELATED APPLN. INFO.: | Division of Ser. No. US 1999-367763, filed on 17 Nov 1999, ABANDONED | | |

| | NUMBER | DATE |
|-----------------------|--|----------|
| PRIORITY INFORMATION: | DE 1997-19757455 | 19971223 |
| | DE 1998-19822721 | 19980520 |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | APPLICATION | |
| LEGAL REPRESENTATIVE: | BRINKS HOFER GILSON & LIONE, One Indiana Square, Suite 2425, Indianapolis, IN, 46204 | |
| NUMBER OF CLAIMS: | 25 | |
| EXEMPLARY CLAIM: | 1 | |
| LINE COUNT: | 648 | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to a film-forming material that contains an inorganic/**organic** hybrid polymer and/or hybrid pre-polymer. The film-forming specifically detachable material of the present invention is useful for the **temporary** stabilizing and/or functionalizing of technical or biological surfaces and additionally contains at least one film-forming water- and or alcohol-soluble polymer. The material of the present invention is generally one in which the hybrid polymer or hybrid pre-polymer, is formed through hydrolitic precondensation, possibly in the presence of at least one condensation catalyst, of at least one organofunctional silane of the formula (I)

wherein X stands for a hydrolizable and condensable group and R for a networkable **organic** residue. A colloidal solution is formed and applied to a desired surface to precipitate the colloid and cause networking of the hybrid pre-polymers with each other to form the specifically detachable, film-forming material on the desired surface.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 4 OF 13 USPATFULL

ACCESSION NUMBER: 2002:119474 USPATFULL
TITLE: Toner for developing electrostatic latent image, image forming method and image forming apparatus using the same
INVENTOR(S): Okuno, Hiroyoshi, Minamiashigara-shi, JAPAN
Matsumoto, Akira, Minamiashigara-shi, JAPAN
Kubo, Tsutomu, Minamiashigara-shi, JAPAN
Lee, Teigen, Minamiashigara-shi, JAPAN
Shibuya, Yuusaku, Minamiashigara-shi, JAPAN
Sugizaki, Yutaka, Minamiashigara-shi, JAPAN
PATENT ASSIGNEE(S): FUJI XEROX CO., LTD. (non-U.S. corporation)

| | NUMBER | KIND | DATE |
|---------------------|----------------|------|--------------|
| PATENT INFORMATION: | US 2002061457 | A1 | 20020523 |
| | US 6555282 | B2 | 20030429 |
| APPLICATION INFO.: | US 2001-962587 | A1 | 20010926 (9) |

| | NUMBER | DATE |
|-----------------------|---|----------|
| PRIORITY INFORMATION: | JP 2000-293433 | 20000927 |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | APPLICATION | |
| LEGAL REPRESENTATIVE: | OLIFF & BERRIDGE, P.O. BOX 19928, ALEXANDRIA, VA, 22320 | |
| NUMBER OF CLAIMS: | 17 | |
| EXEMPLARY CLAIM: | 1 | |
| NUMBER OF DRAWINGS: | 1 Drawing Page(s) | |
| LINE COUNT: | 1121 | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A toner for developing an electrostatic latent image, including toner particles containing a binder resin and a colorant, and an external additive, is provided. The external additive contains silica of which the surface is subjected to hydrophobic treatment and which has an average primary particle size of 80 to 300 nm, a water content of 3 to 15% and a volume resistivity of 1.times.10.sup.13 .OMEGA.cm or more. The invention further provides an image forming method and an image forming apparatus using the same. The toner for developing an electrostatic latent image is good in transferability over a long period of time and gives a high image quality without causing an image defect.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 5 OF 13 USPATFULL

ACCESSION NUMBER: 2002:16771 USPATFULL
TITLE: Perfluorinated amide salts and their uses as ionic conducting materials
INVENTOR(S): Michot, Christophe, Grenoble, FRANCE
Armand, Michel, Montreal, CANADA
Gauthier, Michel, La Prairie, CANADA
Choquette, Yves, Sainte-Julie, CANADA

| | NUMBER | KIND | DATE |
|---------------------|---------------|------|----------|
| PATENT INFORMATION: | US 2002009650 | A1 | 20020124 |

APPLICATION INFO.: US 2001-858439 A1 20010516 (9)
RELATED APPLN. INFO.: Continuation of Ser. No. US 1998-125797, filed on 3 Dec 1998, PENDING

| | NUMBER | DATE |
|-----------------------|---|----------|
| PRIORITY INFORMATION: | CA 1996-2194127 | 19961230 |
| | CA 1997-2199231 | 19970305 |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | APPLICATION | |
| LEGAL REPRESENTATIVE: | OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, P.C., Fourth Floor, 1755 Jefferson Davis Highway, Arlington, VA, 22202 | |
| NUMBER OF CLAIMS: | 78 | |
| EXEMPLARY CLAIM: | 1 | |
| NUMBER OF DRAWINGS: | 2 Drawing Page(s) | |
| LINE COUNT: | 4121 | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention concerns ionic compounds in which the anionic load has been delocalized. A compound disclosed by the invention is comprised of an amide or one of its salts, including an anionic portion combined with at least one cationic portion M.sup.+m in sufficient numbers to ensure overall electronic neutrality; the compound is further comprised of M as a hydroxonium, a nitrosonium NO.sup.+, an ammonium --NH.sub.4+, a metallic cation with the valence m, an **organic** cation with the valence m, or an organometallic cation with the valence m. The anionic portion matches the formula R.sub.F--SO.sub.x--N.sup.-Z, wherein R.sub.F is a perfluorinated group, x is 1 or 2, and Z is an electroattractive substituent. The compounds can be used notably for ionic conducting materials, electronic conducting materials, colorants, and the catalysis of various chemical reactions.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 6 OF 13 USPATFULL

ACCESSION NUMBER: 2001:210462 USPATFULL
TITLE: Porous solid for gas adsorption separation and gas
adsorption separation process employing it
INVENTOR(S): Miyazawa, Kohji, Aichi-gun, Japan
Inagaki, Shinji, Aichi-gun, Japan
PATENT ASSIGNEE(S): KABUSHIKI KAISHA TOYOTA CHUO KENKYUSHO, Aichi-gun,
Japan, 480-1192 (non-U.S. corporation)

| | NUMBER | KIND | DATE |
|---------------------|----------------|------|--------------|
| PATENT INFORMATION: | US 2001042440 | A1 | 20011122 |
| | US 6346140 | B2 | 20020212 |
| APPLICATION INFO.: | US 2001-820940 | A1 | 20010330 (9) |

| | NUMBER | DATE |
|-----------------------|---|----------|
| PRIORITY INFORMATION: | JP 2000-99564 | 20000331 |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | APPLICATION | |
| LEGAL REPRESENTATIVE: | OBLON SPIVAK MCCLELLAND MAIER & NEUSTADT PC, FOURTH FLOOR, 1755 JEFFERSON DAVIS HIGHWAY, ARLINGTON, VA, 22202 | |
| NUMBER OF CLAIMS: | 19 | |
| EXEMPLARY CLAIM: | 1 | |
| NUMBER OF DRAWINGS: | 10 Drawing Page(s) | |
| LINE COUNT: | 1322 | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A gas adsorption separation process characterized by adsorption separation of components in a gas by contacting the gas with a porous

solid which is a porous solid having an X-ray diffraction pattern with at least one peak at a diffraction angle corresponding to a d value of 1 nm or greater; and

having a nitrogen adsorption isotherm measured at liquid nitrogen temperature with at least one section where the change in nitrogen adsorption in terms of the volume of nitrogen under standard conditions is 50 ml/g or greater with a relative vapor pressure change of 0.1 in a relative vapor pressure range of 0.2-0.8;

wherein the porous solid possesses mesopores with a median pore size of 2-50 nm in the pore size distribution curve and pore walls that are porous.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 7 OF 13 USPATFULL

ACCESSION NUMBER: 2001:208411 USPATFULL
TITLE: Perfluorinated amide salts and their uses as ionic conducting materials
INVENTOR(S): Michot, Christophe, Grenoble, France
Armand, Michel, Montreal, Canada
Gauthier, Michel, La Prairie, Canada
Choquette, Yves, Sainte-Julie, Canada
PATENT ASSIGNEE(S): Hydro-Quebec, Montreal, Canada (non-U.S. corporation)
Centre National de la Recherche Scientifique, Paris, France (non-U.S. corporation)

| | NUMBER | KIND | DATE |
|---------------------|----------------|------|--------------------------|
| PATENT INFORMATION: | US 6319428 | B1 | 20011120 |
| | WO 9829388 | | 19980709 |
| APPLICATION INFO.: | US 1998-125797 | | 19981203 (9) |
| | WO 1997-CA1013 | | 19971230 |
| | | | 19981203 PCT 371 date |
| | | | 19981203 PCT 102(e) date |

| | NUMBER | DATE |
|-----------------------|--|----------|
| PRIORITY INFORMATION: | CA 1996-2194127 | 19961230 |
| | CA 1997-2199231 | 19970305 |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | GRANTED | |
| PRIMARY EXAMINER: | Kopec, Mark | |
| LEGAL REPRESENTATIVE: | Hutchins, Wheeler & Dittmar | |
| NUMBER OF CLAIMS: | 46 | |
| EXEMPLARY CLAIM: | 1 | |
| NUMBER OF DRAWINGS: | 2 Drawing Figure(s); 2 Drawing Page(s) | |
| LINE COUNT: | 5266 | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention concerns ionic compounds in which the anionic load has been delocalized. A compound disclosed by the invention is comprised of an amide or one of its salts, including an anionic portion combined with at least one cationic portion M^{+m} in sufficient numbers to ensure overall electronic neutrality; the compound is further comprised of M as a hydroxonium, a nitrosonium NO^{+} , an ammonium NH_4^{+} , a metallic cation with the valence m, an **organic** cation with the valence m, or an organometallic cation with the valence m. The anionic portion matches the formula $R^{+}SO_x^{+}N^{+}Z$, wherein R^{+} is a perfluorinated group, x is 1 or 2, and Z is an electroattractive substituent. The compounds can be used notably for ionic conducting materials, electronic conducting materials, colorants, and the catalysis of various chemical reactions.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 8 OF 13 USPATFULL

ACCESSION NUMBER: 2001:153145 USPATFULL

TITLE: Fluoroalkyl-functional organopolysiloxane-containing compositions based on water, a process for their preparation and their use

INVENTOR(S): Standke, Burkhard, Loerrach, Germany, Federal Republic of
Edelmann, Roland, Wehr, Germany, Federal Republic of
Frings, Albert-Johannes, Rheinfelden, Germany, Federal Republic of
Horn, Michael, Rheinfelden, Germany, Federal Republic of
Jenkner, Peter, Rheinfelden, Germany, Federal Republic of
Laven, Ralf, Niederdossenbach, Germany, Federal Republic of
Mack, Helmut, Rheinfelden, Germany, Federal Republic of
Monkiewicz, Jaroslaw, Rheinfelden, Germany, Federal Republic of
PATENT ASSIGNEE(S): Degussa-Huels Aktiengesellschaft, Frankfurt am Main, Germany, Federal Republic of (non-U.S. corporation)

| | NUMBER | KIND | DATE |
|-----------------------|--|------|--------------|
| PATENT INFORMATION: | US 6288256 | B1 | 20010911 |
| APPLICATION INFO.: | US 1999-229124 | | 19990112 (9) |
| RELATED APPLN. INFO.: | Continuation of Ser. No. US 1998-93681, filed on 9 Jun 1998, now patented, Pat. No. US 6054601 Division of Ser. No. US 1997-984094, filed on 3 Dec 1997, now patented, Pat. No. US 5808125 | | |

| | NUMBER | DATE |
|-----------------------|--|----------|
| PRIORITY INFORMATION: | DE 1996-19649953 | 19961203 |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | GRANTED | |
| PRIMARY EXAMINER: | Wilson, James O. | |
| LEGAL REPRESENTATIVE: | Oblon, Spivak, McLelland, Maier & Neustadt, P.C. | |
| NUMBER OF CLAIMS: | 37 | |
| EXEMPLARY CLAIM: | 1 | |
| LINE COUNT: | 927 | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An aqueous organopolysiloxane-containing composition comprising organopolysiloxanes of formula I:

$$\text{HO} [\text{Si}(\text{A})(\text{CH}_{\text{sub.3}})_{\text{sub.z}}(\text{OH})_{\text{sub.1-z}}\text{O}]_{\text{sub.a}} [\text{Si}(\text{B})(\text{R}_{\text{sup.2}})_{\text{sub.y}}(\text{OH})_{\text{sub.1-y}}\text{O}]_{\text{sub.b}} [\text{Si}(\text{C})(\text{CH}_{\text{sub.3}}\text{O})_{\text{sub.c}} [\text{Si}(\text{D})(\text{OH})\text{O}]_{\text{sub.d}} \text{H}(\text{HX})_{\text{sub.e}}(\text{I}),$$

wherein A is an aminoalkyl group of formula II:

$$\text{H}_{\text{sub.2}}\text{N}(\text{CH}_{\text{sub.2}})_{\text{sub.f}}(\text{NH})_{\text{sub.g}}(\text{CH}_{\text{sub.2}})_{\text{sub.h}}\text{Si}(\text{OR})_{\text{sub.3-z}}(\text{CH}_{\text{sub.3}})_{\text{sub.z}}(\text{II}),$$

in which $0 \leq f \leq 6$, $g=0$ if $f=0$ and $g=1$ if $f>0$, $0 \leq h \leq 6$ and $0 \leq z \leq 1$;

B is a fluoroalkyl group of formula III:

$$\text{R}_{\text{sup.1}} \text{--Y--}(\text{CH}_{\text{sub.2}})_{\text{sub.2}}\text{Si}(\text{R}_{\text{sup.2}})_2\text{Y}(\text{OR})_{\text{sub.3-y}}(\text{III})$$

wherein $\text{R}_{\text{sup.1}}$ is a mono-, oligo- or perfluorinated alkyl group having

1-9 C atoms, or a mono-, oligo- or perfluorinated aryl group, Y is a CH.sub.2, O or S group, R.sup.2 is a linear, branched or cyclic alkyl group having 1-8 C atoms or an aryl group and 0.ltoreq.y.ltoreq.1;

C is an alkyl group of formula IV:

R.sup.3 --Si(CH.sub.3)(OR).sub.2 (IV),

and D is an alkyl group of formula V:

R.sup.3 --Si(OR).sub.3 (V)

wherein R.sup.3, in each case is identical or different, and is a linear, branched or cyclic alkyl group having 1-8 C atoms, and R, in each case is identical or different, and is a linear, branched or cyclic alkyl group having 1-8 C atoms or an aryl group;

and HX is an acid, in which X is an inorganic or **organic** acid radical, and 0.ltoreq.y.ltoreq.1, 0.ltoreq.z.ltoreq.1, a>0, b>0, c.gtoreq.0, d.gtoreq.0, e.gtoreq.0 and (a+b+c+d).gtoreq.2, the composition being essentially free from **organic** solvents, having a flash point of more than 70.degree. C. and liberating essentially no alcohols by hydrolysis on dilution with water.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 9 OF 13 USPATFULL

ACCESSION NUMBER: 2000:50851 USPATFULL

TITLE: Fluoroalkyl-functional organopolysiloxane-containing compositions based on water, a process for their preparation and their use

INVENTOR(S): Standke, Burkhard, Loerrach, Germany, Federal Republic of
Edelmann, Roland, Wehr, Germany, Federal Republic of
Frings, Albert-Johannes, Rheinfelden, Germany, Federal Republic of
Horn, Michael, Rheinfelden, Germany, Federal Republic of
Jenkner, Peter, Rheinfelden, Germany, Federal Republic of
Laven, Ralf, Niederdossenbach, Germany, Federal Republic of
Mack, Helmut, Rheinfelden, Germany, Federal Republic of
Monkiewicz, Jaroslaw, Rheinfelden, Germany, Federal Republic of
PATENT ASSIGNEE(S): Huels Aktiengesellschaft, Marl, Germany, Federal Republic of (non-U.S. corporation)

| | NUMBER | KIND | DATE |
|-----------------------|---|------|--------------|
| PATENT INFORMATION: | US 6054601 | | 20000425 |
| APPLICATION INFO.: | US 1998-93681 | | 19980609 (9) |
| RELATED APPLN. INFO.: | Division of Ser. No. US 1997-984094, filed on 3 Dec 1997, now patented, Pat. No. US 5808125 | | |

| | NUMBER | DATE |
|-----------------------|---|----------|
| PRIORITY INFORMATION: | DE 1996-19649953 | 19961203 |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | Granted | |
| PRIMARY EXAMINER: | Wilson, James O. | |
| LEGAL REPRESENTATIVE: | Oblon, Spivak, McClelland, Maier & Neustadt, P.C. | |
| NUMBER OF CLAIMS: | 20 | |
| EXEMPLARY CLAIM: | 1 | |

LINE COUNT: 1118
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Organopolysiloxane containing compositions are prepared by mixing an organopolysiloxane containing an aminoalkyl group, an organopolysiloxane containing a fluoroalkyl group, and optionally, organopolysiloxanes containing alkyl groups, together with water, or a water/acid mixture, or a water/acid/alcohol mixture, where the mixture is adjusted to have a pH in the range of 1-8, then removing the alcohol already present or formed during reaction.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 10 OF 13 USPATFULL

ACCESSION NUMBER: 1998:112194 USPATFULL

TITLE: Fluoroalkyl-functional organopolysiloxane-containing compositions based on water, a process for their preparation and their use

INVENTOR(S): Standke, Burkhard, Loerrach, Germany, Federal Republic of
Edelmann, Roland, Wehr, Germany, Federal Republic of
Frings, Albert-Johannes, Rheinfelden, Germany, Federal Republic of
Horn, Michael, Rheinfelden, Germany, Federal Republic of
Jenkner, Peter, Rheinfelden, Germany, Federal Republic of
Laven, Ralf, Niederdossenbach, Germany, Federal Republic of
Mack, Helmut, Rheinfelden, Germany, Federal Republic of
Monkiewicz, Jaroslaw, Rheinfelden, Germany, Federal Republic of

PATENT ASSIGNEE(S): Huels Aktiengesellschaft, Marl, Germany, Federal Republic of (non-U.S. corporation)

| | NUMBER | KIND | DATE |
|---------------------|----------------|------|--------------|
| PATENT INFORMATION: | US 5808125 | | 19980915 |
| APPLICATION INFO.: | US 1997-984094 | | 19971203 (8) |

| | NUMBER | DATE |
|-----------------------|---|----------|
| PRIORITY INFORMATION: | DE 1996-19649953 | 19961203 |
| DOCUMENT TYPE: | Utility | |
| FILE SEGMENT: | Granted | |
| PRIMARY EXAMINER: | Siegel, Alan | |
| LEGAL REPRESENTATIVE: | Oblon, Spivak, McClelland, Maier & Neustadt, P.C. | |
| NUMBER OF CLAIMS: | 8 | |
| EXEMPLARY CLAIM: | 1 | |
| LINE COUNT: | 822 | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB An aqueous organopolysiloxane-containing composition comprising organopolysiloxanes of formula I:

$$\text{HO}[\text{Si}(\text{A}) (\text{CH}_{\text{sub.3}})_{\text{sub.z}} (\text{OH})_{\text{sub.1-z}} \text{O}]_{\text{sub.a}} [\text{Si}(\text{B}) (\text{R}_{\text{sup.2}})_{\text{sub.y}} (\text{OH})_{\text{sub.1-y}} \text{O}]_{\text{sub.b}} [\text{Si}(\text{C}) (\text{CH}_{\text{sub.3}}\text{O})_{\text{sub.c}} [\text{Si}(\text{D}) (\text{OH})\text{O}]_{\text{sub.d}} \text{H.multidot.}(\text{HX})_{\text{sub.e}} \quad (\text{I}),$$

wherein A is an aminoalkyl group of formula II:

$$\text{H}_{\text{sub.2}} \text{N}(\text{CH}_{\text{sub.2}})_{\text{sub.f}} (\text{NH})_{\text{sub.g}} (\text{CH}_{\text{sub.2}})_{\text{sub.h}} \text{Si}(\text{OR})_{\text{sub.3-z}} (\text{CH}_{\text{sub.3}})_{\text{sub.z}} \quad (\text{II}),$$

in which $0.\text{ltorsim.f.ltorsim.6}$, $g=0$ if $f=0$ and $g=1$ if $f>0$,
 $0.\text{ltorsim.h.ltorsim.6}$ and $0.\text{ltorsim.z.ltorsim.1}$;

B is a fluoroalkyl group of formula III:

$R^{sup.1} --Y--(CH^{sub.2})^{sub.2} Si(R^{sup.2})_y(OR)^{sub.3}_y$ (III),

wherein $R^{sup.1}$ is a mono-, oligo- or perfluorinated alkyl group having 1-9 C atoms, or a mono-, oligo- or perfluorinated aryl group, Y is a $CH^{sub.2}$, O or S group, $R^{sup.2}$ is a linear, branched or cyclic alkyl group having 1-8 C atoms or an aryl group and $0 < y < 1$;

C is an alkyl group of formula IV:

$R^{sup.3} --Si(CH^{sub.3})_2(OR)^{sub.2}$ (IV),

and D is an alkyl group of formula V:

$R^{sup.3} --Si(OR)^{sub.3}$ (V),

wherein $R^{sup.3}$, in each case is identical or different, and is a linear, branched or cyclic alkyl group having 1-8 C atoms, and R, in each case is identical or different, and is a linear, branched or cyclic alkyl group having 1-8 C atoms or an aryl group; and HX is an acid, in which X is an inorganic or **organic** acid radical, and $0 < y < 1$, $0 < z < 1$, $a > 0$, $b > 0$, $c < 1$, $d < 1$, $e < 1$ and $(a+b+c+d) < 2$, the composition being essentially free from **organic** solvents, having a flash point of more than 70.degree. C. and liberating essentially no alcohols by hydrolysis on dilution with water.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 11 OF 13 USPATFULL

ACCESSION NUMBER: 97:93825 USPATFULL

TITLE: Silicon-containing networked non-linear optical compositions

INVENTOR(S): Jeng, Ru Jong, Chelmsford, MA, United States

Chen, Yong Ming, Lowell, MA, United States

Jain, Aloke Kumar, Bangalore, India

Kumar, Jayant, Lowell, MA, United States

Tripathy, Sukant Kishore, Acton, MA, United States

PATENT ASSIGNEE(S): University of Massachusetts Lowell, Lowell, MA, United States (U.S. corporation)

| | NUMBER | KIND | DATE |
|-----------------------|--|------|--------------|
| PATENT INFORMATION: | US 5676883 | | 19971014 |
| APPLICATION INFO.: | US 1995-449159 | | 19950524 (8) |
| RELATED APPLN. INFO.: | Division of Ser. No. US 1992-950398, filed on 23 Sep 1992, now patented, Pat. No. US 5433895 | | |
| DOCUMENT TYPE: | Utility | | |
| FILE SEGMENT: | Granted | | |
| PRIMARY EXAMINER: | Tucker, Philip | | |
| LEGAL REPRESENTATIVE: | Hamilton, Brook, Smith & Reynolds, P.C. | | |
| NUMBER OF CLAIMS: | 9 | | |
| EXEMPLARY CLAIM: | 1 | | |
| NUMBER OF DRAWINGS: | 11 Drawing Figure(s); 8 Drawing Page(s) | | |
| LINE COUNT: | 767 | | |

AB A nonlinear optical composition and a method of forming the nonlinear optical composition are disclosed. The nonlinear optical composition includes a silicon-containing component and a nonlinear optical component which causes the nonlinear optical composition to exhibit second order nonlinear optical polarization of electromagnetic radiation, such as light. The method includes forming a sol of the silicon-containing component and the nonlinear optical component of the

composition. A gel is formed from the sol. The nonlinear optical component is then poled while the gel is exposed to conditions sufficient to cause formation of a nonlinear optical composition which exhibits second order nonlinear optical polarization of electromagnetic radiation.

L7 ANSWER 12 OF 13 USPATFULL

ACCESSION NUMBER: 97:33348 USPATFULL
TITLE: Chemically derived leucite
INVENTOR(S): Erbe, Erik M., Stillwater, MN, United States
Sapieszko, Ronald S., Woodbury, MN, United States
PATENT ASSIGNEE(S): Minnesota Mining and Manufacturing Company, St. Paul,
MN, United States (U.S. corporation)

| | NUMBER | KIND | DATE |
|-----------------------|--|------|--------------|
| PATENT INFORMATION: | US 5622551 | | 19970422 |
| APPLICATION INFO.: | US 1995-536073 | | 19950929 (8) |
| RELATED APPLN. INFO.: | Continuation of Ser. No. US 1994-338278, filed on 14 Nov 1994, now abandoned which is a continuation of Ser. No. US 1993-145493, filed on 29 Oct 1993, now abandoned | | |
| DOCUMENT TYPE: | Utility | | |
| FILE SEGMENT: | Granted | | |
| PRIMARY EXAMINER: | Marcantoni, Paul | | |
| LEGAL REPRESENTATIVE: | Griswold, Gary L., Kirn, Walter N., Bjorkman, Dale A. | | |
| NUMBER OF CLAIMS: | 37 | | |
| EXEMPLARY CLAIM: | 1 | | |
| NUMBER OF DRAWINGS: | 1 Drawing Figure(s); 1 Drawing Page(s) | | |
| LINE COUNT: | 1054 | | |

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Chemically derived leucite is claimed. The chemically derived leucite is obtained from a stable dispersion of a potassia precursor, an alumina precursor and a silica precursor having a specified dry weight solids content. Chemically derived tetragonal leucite is particularly useful as a component of a dental porcelain.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L7 ANSWER 13 OF 13 USPATFULL

ACCESSION NUMBER: 95:64668 USPATFULL
TITLE: Silicon-containing networked non-linear optical
compositions
INVENTOR(S): Jeng, Ru J., Chelmsford, MA, United States
Chen, Yong M., Lowell, MA, United States
Jain, Aloke K., Bangalore, India
Kumar, Jayant, Lowell, MA, United States
Tripathy, Sukant K., Acton, MA, United States
PATENT ASSIGNEE(S): University of Massachusetts Lowell, Lowell, MA, United
States (U.S. corporation)

| | NUMBER | KIND | DATE |
|-----------------------|---|------|--------------|
| PATENT INFORMATION: | US 5433895 | | 19950718 |
| APPLICATION INFO.: | US 1992-950398 | | 19920923 (7) |
| DOCUMENT TYPE: | Utility | | |
| FILE SEGMENT: | Granted | | |
| PRIMARY EXAMINER: | Tucker, Philip | | |
| LEGAL REPRESENTATIVE: | Hamilton, Brook, Smith & Reynolds | | |
| NUMBER OF CLAIMS: | 11 | | |
| EXEMPLARY CLAIM: | 1 | | |
| NUMBER OF DRAWINGS: | 11 Drawing Figure(s); 8 Drawing Page(s) | | |
| LINE COUNT: | 754 | | |

AB A nonlinear optical composition and a method of forming the nonlinear

optical composition are disclosed. The nonlinear optical composition includes a silicon-containing component and a nonlinear optical component which causes the nonlinear optical composition to exhibit second order nonlinear optical polarization of electromagnetic radiation, such as light. The method includes forming a sol of the silicon-containing component and the nonlinear optical component of the composition. A gel is formed from the sol. The nonlinear optical component is then poled while the gel is exposed to conditions sufficient to cause formation of a nonlinear optical composition which exhibits second order nonlinear optical polarization of electromagnetic radiation.

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